

CHALLENGES TO RELEVANT AND AFFORDABLE ACQUISITIONS

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USAWC CIVILIAN RESEARCH PROJECT

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ABSTRACT

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The Army can no longer afford to spend billions of dollars on programs that are redundant, irrelevant, or unexecutable due to technology constraints or changing requirements. This paper will conduct a critical analysis of the political, policy, and personnel drivers that detract from an integrated and executable modernization strategy.

CHALLENGES TO RELEVANT AND AFFORDABLE ACQUISITIONS

Introduction:

The Army has been attempting for decades to create and maintain a consistent and long term strategy to enable the Army to remain the pre-eminent land battle force in the world. This position of power can only be obtained by maintaining the most lethal and agile combat force with the latest and most advanced capabilities. However, since 2004, the Army has poured more than \$3.5 billion into programs that will never be deployed or fielded, which accounts for more than 35 percent of the Army's annual budget for development of programs and nearly 10 percent of the total budget for acquisitions. [1] Given the current and projected decline in budgets for the US government and Army, this level of resource expenditure with no return is not only unsustainable, it is depriving soldiers of critical capabilities they need now. This paper will provide a critical analysis of the policy, political, and personnel drivers that detract from creating and maintaining an integrated and executable modernization strategy.

The Army Chief of Staff reinforced the need for a modernization strategy with the FY2010 strategic objectives, directing the development of an "Integrated and Affordable Modernization Strategy." [2] The key tenets of this directive being: 1) better alignment within the modernization community; 2) standardized portfolio strategies for tactical wheeled vehicles, combat ground vehicles, aviation, ISR, and network; 3) Army equipping strategy aligned to the Army Force Generation (ARFORGEN) model.

Each year, since 2003 through the current 2011 appropriations [3], the American tax payer, through Congress, has entrusted the Department and its professionals, military officers, civilians, and contractors, with an average of \$45 billion in funding for

acquisition programs and services. The expectation is that the numerous acquisition professionals will be good custodians and provide excellent fiduciary oversight of these dollars ensuring that they are spent both wisely and judiciously to ensure our soldiers remain both effective and safe on the battlefield.

Most programs focus on the technology and resources for a program's success or failure, but at the core of all activities, people are the true resource and driver for all programs. This paper will take a highly critical look at how people, both within the department and externally, specifically congress and industry, influence the acquisition process and determine the future of any program. Nothing in this paper should be seen as disparaging to our professional and dedicated men and women who drive the acquisition process. In fact, it is their professionalism, dedication, and strong ethics that allow the system to function and create the critical weapons and equipment our soldiers need and deserve, in spite of all the challenges and constraints for any acquisition program.

Policies:

Congress' annual appropriations, measured in tens of billions of dollars, focus on getting the most capable weapons and equipment for our soldiers while retaining the most buying power for the department. To ensure that the American taxpayer dollars are correctly spent, Congress and the Department of Defense have enacted and directed numerous laws, policies and regulations that govern most aspect of acquisitions.

While these laws and policies are meant to address perceived deficiencies, they are meant to streamline or improve the acquisition process. However, they can actually

create a burden for the Department due to the extensive non-value add effort required to comply. Enforcement and compliance are measured in numerous reports to Congress and often lengthy reviews that are meant to enhance programs and ensure that taxpayer dollars are being well spent. However, when one takes a critical look at the volume and magnitude of these laws and policies, one may ask how any program can be successful. The following is a detailing of the level and magnitude of these laws and policies that govern most Department of Defense acquisitions greater than \$100,000, which accounts for more than 95% of all acquisitions by the U.S. Army.[3]

Congressional Oversight and Law:

The most significant change to acquisitions by the U.S. Congress was the enactment of the Defense Acquisition Workforce Initiative Act (DAWIA) of FY1991. Congress has subsequently updated this law no less than three times, in 2003, 2004, and 2006, bringing numerous changes to the first 1991 version.[4] Each change was intended to address a concern that Congress perceived was negatively influencing the DoD Acquisition process or personnel. However, each change also resulted in additional requirements on the services for reporting, additional oversight, often by an external agency, or the creation of a new oversight organization such as the Cost Assessment and Program Evaluation office in 2009.[5] None of these new requirements or oversight came with additional funding or relief from congressionally imposed constraints for the service or programs affected. The validity of the data used by Congress to generate these changes has been a topic of much debate over the last twenty years, but the fact remains, these changes were codified in law and the services must comply with all aspects of the existing and requirements.

Congress enacted the Weapon Systems Acquisition Reform Act (WSARA) 2009, with the intent of improving transparency in cost estimation and review procedures. This act levied increased requirements on the services and Major Defense Acquisition Programs (MDAP) to meet the already rigorous requirements of the Milestone (MS) A, B,C, and Full Rate Production Decisions. Additionally, this act required the services to fully fund a Major Defense Acquisition Program (MDAP) to the new cost position at MS A in the Future Years Defense Plan. Previous law required such funding commitments by the services at MS B, the point at which the service has determined the course of a program and the projected technology or materiel solution to be pursued. This allowed the program to review all possible concepts and provide service leadership with a rational and objective review of alternatives and costing options.[6] WSARA 2009 now moved this review and costing position forward by several years to the MS A decision, for all existing and emerging MDAPs and placing a great deal of uncertainty into most programs as the final design concepts and costing options are immature at best at the MS A decision point. Thus, Congress in its desire to assist the services in controlling costs and generating executable budgets, has actually created the converse where the programs and services must look into their crystal balls and attempt to predict how a program will progress through concept exploration between MS A and MS B.[7]

Congressional Influence:

Congress also has the ability to directly influence a specific program through either authorization or appropriation language in either the actual law or in committee language. While there is much debate on whether committee language carries the force of law, most legal opinions highly encourage compliance, lest Congress stipulate

the direction in law or decrement a program funding or authorization in subsequent years.

One such example was the Congressional direction to procure upwards of 3000 new High Mobility Multi-purpose Wheeled Vehicles (HMMWVs) in FY2009 and FY2010. The Vice Chief of Staff's portfolio reviews, a holistic review of the Army's requirements to current capabilities had just concluded that the Army needed no additional HMMWVs and requested to shift the funds to other critical warfighter capabilities. Congress denied this request and reasserted the Army to procure additional new HMMWVs over and above its current and future requirements.[8] The Army Acquisition Executive and Army senior leadership have continued to resist this inefficient and unrequired procurement of equipment. Congress also issued direction in 2009 that DoD, "take immediate action to provide combat uniforms to personnel deployed to Afghanistan with a camouflage pattern that is suited to the environment of Afghanistan." [9] Congress issued this direction based on anecdotal evidence by a handful of soldiers that the current ACU pattern was not effective. This single uniform change is estimated to cost upwards of \$1 billion to convert the uniforms and all associated equipment and will only be fielded to soldiers deploying into the Afghanistan theater of operation. The true cost and effectiveness of this change will be forthcoming as the Army continues its development and assessment of this uniform change, but this clear example of an external factor or actor creating requirements and creating inefficiency in the acquisition can neither be disregarded or considered an exception.

Policy and Oversight:

When Congress enacts laws such as DAWIA and WSARA, OSD responds by creating new policy and regulations to enforce the new law or oversight requirement from Congress. Then, in turn, each of the services generates policy and regulations to refine the OSD and Congressional direction.

The two major DoD level regulations governing service acquisitions are the Federal Acquisition Regulation, Volumes I and II, and the DoD Instructions 5000.02. These two documents encapsulate OSD's instructions on how a program of record is to be initiated, developed, funded, and executed. Together, these two governance regulation are a substantial 2,000 pages of instructions for the services to follow for acquisitions regardless of size from MDAPs to simplified acquisitions under \$100,000.[10][11]

The Joint Staff also adds to this body of regulations with the CJCSI 3170.01G, Joint Capabilities Integration and Development System. This thirty page document covers how the services are to create and justify a system's requirements.[13]

Then each of the services creates an internal regulation or policy on the Acquisition, requirements generation, and testing processes to supplement these OSD and Joint governance. The end result being that a typical MDAP program manager will have more than 3,000 pages of regulations, policies and directives that one must be in compliance with at each stage of a programs life cycle.

In addition to regulations and policy, another internal factor/actor to the acquisition process is the concept of oversight. OSD has numerous organizations

mandated under U.S. Title 10, DAWIA, and WSARA 2009 to provide oversight and reports to Congress on MDAPs. However, these OSD organizations, to include Defense Acquisition Agency (DAE), OSD Director, Operational Test and Evaluation, and the Joint Staff have the authority to designate any program joint or of joint interest with oversight, regardless of the dollar thresholds which normally determine the acquisition category and oversight level.[10][11] This essentially brings a program under greater scrutiny and reporting requirement than would normally be associated with a lesser dollar program and the only requirement for this designation is that one of the three directors make a decision. Granted, these decisions are not made lightly, but often have a major impact to a program in both funding and time, two commodities in short supply for most programs.

Once a program is designated as an MDAP or listed as OSD/Joint interest/oversight, a program manager and the service are immediately required to generate upwards of forty statutorily or regulatory required documents for each milestone or program decision.[8][10][11] These milestone documentation packets can reach upwards of 1,000 pages of reports and briefings. Some of these reports or documents are small and require minimal time and manpower to generate, but the bulk are manpower intensive to create and even more so to get through the numerous levels of review and approval before final presentation to the milestone decision authority (MDA). [6][14] Additionally, when the MDA is the Defense Acquisition Authority, the service's requirement to reach that point has consumed a significant amount of time by the program manager and his staff, but also a large volume of time in staffing at the two, three, and four star levels within the service. While there is no direct study to confirm

the increased requirements in time and funding for an MDAP or oversight designation, anecdotal assessments place it as adding at least an additional year to a programs baseline to comply with the additional reporting and oversight requirements.[14]

Requirements:

Every acquisition or service procured by the department begins with a perceived gap in capability and is translated into a requirement. CJCSI 3170.01G states, “ There are three key processes in the DoD that must work in concert to deliver the capabilities required by the warfighter: the requirements process; the acquisition process; and the Planning, Programming, Budget, and Execution process.” [13]

Requirements are not generated lightly and through the use of the Joint Capabilities Integration and Development System (JCIDS), they are in principal to be fully vetted and assessed for military utility to ensure that no non-materiel solutions exist that are deemed acceptable to meet the warfighter’s gap. JCIDS is an iterative process that in theory reviews the requirements at each stage of acquisition to ensure that the requirement is still valid and that the solution being developed is still relevant and affordable to meet the gap. [13]

One may debate the importance of any one stage, review, assessment, or process of the entire Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management System as to which is the most important, but all must acknowledge that without a requirement, the rest of the process lacks purpose. However, requirements play an even more critical purpose than just program initiation; they provide a program with direction and focus. The computer industry axiom of “garbage in equals garbage out” holds true for all acquisitions. A requirement must be relevant

and executable, while remaining flexible and adaptable to the changing environment and current fight.

Flexibility and relevance have become key elements of the current fights in Iraq and Afghanistan with an ever-evolving, quick learning, and agile adversary. The services must retain technological advantage through a balance of short term “off-the-shelf” capabilities, evolving doctrine, and education of our leaders to be adaptive and “out-of-the-box” thinkers.[2] This current and ever changing world environment has shown that outfitting the entire Army with a particular capability is not only no longer affordable, but also not feasible or sound in principle. Army leadership, since the deployment of the Stryker family of vehicles, has been focused on the concepts of agile, tailorable, modular, and flexible combat units capable of performing all missions around the world. This must create a paradigm shift in how the Army develops and generates requirements for new materiel solutions. The Army needs to shift its focus from longer term material development programs towards a faster and more relevant process of “buying few and more often.” [2] This shift will allow the Army to focus its development effort and dollars on the quick return for the current operation, then assess if the materiel solution needs to be widely fielded, such as individual weapons and uniforms or a tailored fielding based on mission and theater of operation.

One may ask, “how does the current system preclude this rapid development and limited fielding?” The answer is no regulation or law stops the service from executing a faster and more responsive process to deliver these short term, often high pay off capabilities. However, the current requirements generation and validation process makes the above concept irrelevant and untimely when the average capability

document will require no less than 180 days to receive service approval and often an additional 120 days for joint concurrence.[13] How can the services retain the technological advantage and remain relevant to an ever changing and adapting enemy, when it takes the department nearly a year to determine what is required for the soldier, before the acquisition process can even begin to develop the needed capability. In 2002, the services acknowledged this delay and immediate need for equipment: using Global War on Terrorism and later Overseas Contingency Operations, Title IX funding, several initiatives and offices were created to rapidly accelerate the delivery of critical capabilities to the soldier.

Organizations such as Joint IED Defeat Organization (JIEDDO), the Rapid Equipping Force (REF), and the Rapid Fielding Initiative (RFI) have clearly demonstrated over the last decade of conflict, that with a tailored and reasonably short requirement that it is possible to develop and deliver relevant and effective equipment to the soldier in under twelve months.[15] Each of these acquisitions was initiated with an Urgent Operational Needs Statement (UONS) or a Joint Urgent Operational Needs Statement (JUONS) signed off by an operational commander in theater facing a specific threat with an immediate need for a materiel solution. These acquisitions are often off-the-shelf items with minimal militarization or hardening, come with limited spares, minimal support, beyond replacement, and tailored specific to an individual unit. Follow on units may request the equipment be left behind or to procure new sets if the threat remains. These agencies and requirements serve a very specific need in both duration and focus. But also validate that if the requirements are focused and remain unchanged during the development of a materiel solution, that rapid and affordable

responses are not only possible, but clearly executable by the current acquisition professionals.

The true challenge for the requirements generation community is how to look at both the short and long term futures, connect them, while remaining relevant to the current fight and looking into the future ten to fifteen years. Then constantly challenge the axioms and basis for the original requirements and assumptions in their generation.

[2] Herein lies the major personnel challenge for the Army as a whole in developing professionals that are capable of seeing both the current baseline of the Army and able to predict the future requirements and needs of the Army.

The requirements generation component of the acquisition process has the most ability to impact the performance, delivery, and cost of any acquisition. However, this function has the least amount of formal oversight and guidance in the creation and validation of requirements. Previously, it was highlighted that the FAR is a compilation of more than 2000 pages detailing all aspects of an acquisition program, while the CJCSI 3170.01G JCIDS is a mere 30 pages, that can make or break a program based on how well the requirements are defined and validated.[11][13]

While this short in length policy in theory should allow requirements writers greater flexibility and latitude in defining the key capabilities required of a system, it does leave a great deal of decisions up to the individual writers and their leadership. As stated earlier, people are the critical factor in the process as requirements generation is people intensive and driven, thus creating the Army's other challenge in creating requirements: how to ensure those charged with developing and documenting the

requirements are well trained and understand not only the current gap, but also the end-state of the capability and its materiel solution.

A typical acquisition program will have an LTC/GS14 product manager assigned to manage the program through a full phase of the acquisition process or milestone within a three year window. This acquisition professional, by law, under DAWIA will be level three certified in program management through the Defense Acquisition University. This translates into a professional with an average of more than eight years in various acquisition fields, more than one year in formal acquisition training and no less than four years in direct program management positions responsible for cost, schedule, and performance of a specific product or service. [4][5][16] Additionally, these acquisition professionals are managed through their careers to ensure they meet both the educational and experience requirements as mandated by law and policy to ensure they are prepared and certified to manage major programs for the department. As a program's oversight, funding, or scope increase, the services will assign a COL or GS15 with significantly more experience and education to manage these programs, again, ensuring that the professional certifications are adequate to the scope of the program. However, these professionals, by some estimates come into the process too late as the assignment of a product or project manager is not made until after the requirements have been generated and put through the Army and Joint Requirements Councils (AROC and JROC).[5][16]

Neither the Army nor DoD has a formal education and certification process by which it trains and certifies its requirements professionals or organizations. This does not imply that these personnel are untrained or unprofessional, but rather that there is

not a formal process by which these people are trained. Rather the bulk of their training is conducted on the job and by reviewing previous documents.

Additionally, with the reduction of the acquisition workforce in the mid and late 1990's, the Training and Doctrine Commands (TRADOC) allocation of certified acquisition officers was significantly reduced. The direct impact is that fewer officers were trained in acquisitions and understand the importance and impact of poorly documented and validated requirements. These acquisition officers were better situated to assess emerging requirements as to whether they were technologically achievable, affordable, and verifiable during testing; then assist the school house capabilities directorates and requirements writers in levying reasonable, feasible, and executable requirements for materiel solutions early in the process.[17]

Lastly, exacerbating this challenge of personnel training, is the Army's personnel management system of rotating personnel through positions with only two or three years in command select positions such as TRADOC Capability Managers (TCM) and Directors of Combat Development at the different TRADOC centers of excellence. These senior leaders who have the greatest impact on the requirements generation, validation, and modification process are typically line officers with no acquisition, technology, or operation research backgrounds. Rather these officers bring the most recent and relevant tactical and operational experience to the process, but lack the institutional training and developmental assignments to enable them to better understand the impact of poorly written or demonstrable requirements on the acquisition process.

A recent study conducted by former Army Acquisition and Army Materiel Command chiefs concluded that the Army has been “pumping billions of dollars into weapon systems that will never be deployed...” [1] This study did not find fault with the Department of Defense and its processes, nor did it find fault with the acquisition process. Rather this study clearly stated that the major underlying problem preventing the Army for executing such major programs as the Future Combat System, is in the generation and management of requirements. The study made several broad and highly critical assessments about the Army’s future in this budget constrained environment. “the Army takes too long to formalize requirements, starts more programs than it can afford, does not maintain stable priorities, lacks the resolve to work through program difficulties, cannot seem to get new equipment and technology to the operating force in time, and has not fielded a new-start ground combat vehicle in decades.” [1] The study went further in stating that the Army does not have the ability or the right skills by which to generate relevant and timely requirements. “The Army lacks a credible, quantitative model and process for determining realistic, achievable requirements for modernization and recapitalization given reduced budgets.” [1] This study strongly recommends that the Army move requirements generation beyond a TRADOC only exercise and include external and independent agencies such as the Army Test and Evaluation Center (ATEC), Army Materiel Command (AMC), HQ Department of the Army Staff, and the staff of the Assistant Secretary of the Army for Acquisition, Logistics, and Technology (ASA-ALT). Citing that these agencies bring more than just the warfighter perspective to the requirements, they bring the affordability

and technological assessments of requirements before the Department launches a program that is not executable or affordable.

Conclusions:

The services and OSD have long requested of Congress reduction in the amount and types of reports required, but little impact has been realized on the work load for the acquisition professional and each failed program tends to bring greater scrutiny to the service and OSD as a whole. As long as Congress controls the funding for programs and one understands the concept that, “all politics is local” and that while members of congress will often act in the best interest of the nation as a whole they still owe their constituents a well represented local position in congress, congressional influence in programs will remain unchanged. Rather the Army and services as a whole must focus internally on how better to generate, validate, and execute those requirements deemed top priority.

The Army must take a more holistic review of its requirements at the aggregate level, looking for redundancy and non-value add items for either reduction or all out elimination in a manner similar to the 2009/2010 Vice Chief of Staff of the Army portfolio reviews. The recent portfolio reviews are considered a success by the service and OSD, as indicated by a recent guest lecturer at the Defense Acquisition University’s Executive Program Management course in 2011. He cited that the services need to all adapt a similar annual review to determine if the services are on the right path and judiciously allocating resources against the requirements and gaps in the force.

The Army must take this a step further and conduct a thorough review of the current baseline of the Army’s capabilities today and perceived gaps in both the near

and long term future of these portfolio before programs are initiated and significant sums of tax payer dollars are expended. Additionally, assigning product and project managers to programs earlier in their life cycle, pre-MS A or B, could potentially reduce the number of failed starts by the Army. These professionals could bring greater rigor to the Analysis of Alternatives and early cost estimates of the true cost for development and maturation of technologies needed to bring about a materiel solution in a timely and affordable manner that not only meets the warfighters' needs, but is agile and flexible enough to exceed the enemy's ability to adapt.

End Notes:

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